cases because of the very indifferent success which has attended the treatment of strictures of the rectum by bougies, in my own hands, and, I may add, in the hands of those whose practice I have had an opportunity of observing. I was further encouraged by the reflections on the contractile properties of cicatrices, conveyed in the report on the division of strictures of the urethra, in the last number of the JOURNAL. The result of the proceeding is certainly such as to encourage me to its repetition. In Case II, which was a very bad one, the stricture being tight, of long standing, and complicated with numerous and extensive fistulous tracks, the cure appears to have been complete. In the other cases, although the result was not so entirely satisfactory, the passage of the motions was rendered more easy than it had been before the operation.

The experience derived from these three cases suggests the following hints for the future, when it is proposed to resort to the operation. First, having secured, if possible, the complete evacuation of the bowels by means of aperients and clysters, to prevent their action for some days afterwards by the administration of opium. Secondly, to make a free division of the sphincter ani as well as of the stricture. I think it would have been better in case III if this had been done. Thirdly, to endeavour to insert a tube into the bowel after the division of the stricture. The small-sized, tubular, vaginal speculum, expanding at one end in a funnel-like manner, which was used in case II, answered very well. It was confined by a bandage, and a cork, removable at pleasure, supplied the office of the sphincter. There will be less difficulty in placing and retaining the tube, if the sphincter have been divided. In case III, where that had not been done, the extremity of the instrument would, if pressed on, have run into the cellular tissue, external to the rectum. I need scarcely say that care must always be required to prevent this occurrence.

All the simple, that is, non-malignant strictures of the rectum that I have met with, have occupied the same position as in these cases; namely, two or three inches above the anus; and all, with the exception of the first of the cases here given, have been in females. Often the disease was traceable to some vaginal irritation, which, in several instances, was dependent upon gonorrhœa or syphilis.

ROYAL FREE HOSPITAL.

ULCER OF THE STOMACH, COMPLICATED WITH AMENORRHŒA, TREATED SUCCESSFULLY.

By WILLIAM BRINTON, M.D., Physician to the Hospital.

CASE. E. D., an unmarried female servant, aged 19, was admitted as an out-patient of the Royal Free Hospital on the 11th of May, 1855. She had always enjoyed excellent health until about nine months prior to the above date. Her menses commenced at the age of 16, and occurred regularly up to this time, or during about two years. Towards the end of July 1854, the present illness began, by a violent attack of symptoms, which were regarded as due to indigestion. These symptoms consisted of severe pain in the epigastrium, which came on immediately after eating, and, if not interrupted by vomiting, lasted about an hour and a half: and vomiting, which expelled the food previously taken, sometimes with a small quantity of blood, that was rarely more than enough to streak the other substances present. After a short time, the appearance of blood in the matters vomited became less frequent. The vomiting also diminished in frequency; but it was never absent for any considerable period since: and, when absent, it was generally replaced by more or less nausea. The pain also remained, with scarcely any remissions, except such as are procured by an almost complete abstinence from food. Latterly, indeed, both these symptoms had resumed their original frequency and se-

verity, so that almost every meal was followed by severe pain, which only terminated when the food had been rejected from the stomach.

The first access of pain occurred in what should have been an interval of two menstruations; but it was followed by complete amenorrhœa. This had not lasted long before the patient's friends noticed her altered appearance: she became somewhat thinner; and her complexion, naturally ruddy and fresh, acquired a marked pallor. Both the amenorrhœa and the pallor have continued up to the time of admission. The periods corresponding to those of the previous catamenia were not marked by greater severity of the gastric symptoms.

On examining the abdomen, the greatest intensity of the pain was referred to a place in the median line, about two inches below the apex of the ensiform cartilage. Around this as a centre, there was an exceedingly sore and tender spot, of circular shape, and about two inches in diameter. The tenderness was almost limited to this region. But from the periphery of this circle the pain extended, indistinctly, into both hypochondria, at the time of the paroxysm; and often ended by reaching downwards nearly to the umbilicus—an extension which was stated by the patient to be attended with a feeling of tumefaction in the front of the belly. There was a moderate amount of pain in the interscapular region of the spine, at about the level of the tenth dorsal vertebra. This she could distinguish from the lumbar pain that had sometimes preceded menstruation, prior to the present illness. Her decubitus was on the left side; and lying on the right side brought on severe pain in the left margin of the epigastric region just described; soon, however, alleviated by turning so as to bring the left side undermost. The bowels were generally constipated; the appetite capricious, though sometimes very voracious.

The only difference which I could detect between her aspect and that of an ordinary case of chlorosis consisted in the pallor being devoid of that green tinge which names the latter disease; and in the shortness of respiration on exertion being perhaps less marked, as well as the first sound of the heart less affected. But all these peculiarities would have been so readily explained as due to a minor degree of this cachexia, that, in the absence of the gastric symptoms, I should doubtless have looked upon the case as a fair example of chlorosis in moderate intensity.

DIAGNOSIS. The above symptoms, taken in conjunction with the account which the patient gave of herself, afforded fair grounds for the conclusion that she was suffering from an ulcer of the stomach. The character of the pain, the frequency and severity of the vomiting, the hæmorrhage which accompanied their access, and the amenorrhœa and pallor they had produced, left little doubt that such a lesion was present.

There was nothing, however, to justify any conjecture as to the situation of the ulcer. From its duration, it might perhaps be guessed that the lesion could hardly be low down on the anterior surface of the organ, where adhesions are rarely strong enough to form any efficient protection against perforation. But as there are records of instances in which an ulcer in this wall of the stomach appears to have lasted nearly as long as the nine months just specified, before finally penetrating the peritoneal coat of the organ, we cannot lay much stress on so feeble an argument. Taken in conjunction with the decubitus, and the rapidity with which the pain followed a meal, it can at most afford us a vague presumption that the ulcer was placed near the lesser curvature, and the cardiac aperture, of the organ. Such a presumption is so far confirmed by the numerical results of the necropsy of the ulcer* as that the lesion is very frequently placed in this situation.

A far more important point, however, suggested itself with reference to the supposed lesion. The age of the patient, and the disorder of menstruation which accompanied the gastric symptoms, fully entitled me to suspect that the

* See the author's essay, "On the Gastric Ulcer". (British and Foreign Medico-Chirurgical Review, January 1856, p. 172.)

ulcer possessed certain characters, materially influencing the prognosis, as well as the diagnosis, of the disease. In other words, the pathology of the gastric ulcer teaches us that, in such circumstances, the lesion often exhibits no trace of inflammatory reaction in its base or margin, the process of destructive absorption being quite unaccompanied by any deposit of lymph around it internally, as well as by adhesion of the stomach externally to neighbouring organs. In short, the ulcer is unusually liable to perforate the stomach. Hence, assuming that I was right in my diagnosis, it followed that the patient was not improbable in imminent peril of her life.

The facts on which these important propositions are founded would occupy too much space to be entered on here. But, in referring to them as in any way based upon my own researches,* I feel bound to mention the priority which belongs to Dr. Crisp,† whose collection of cases of this kind first established (on any satisfactory basis) the peculiar frequency of perforation of the stomach, by the simple non-inflammatory ulcer, in the unmarried female.

TREATMENT. From the account the patient gave of herself, I found reason to suspect that she had lately been gradually falling into a very irregular and injudicious system of diet: at times almost starving herself, to mitigate the pain and vomiting; and then again eating a copious meal when her resolution gave way under the influence of prolonged hunger.

To remedy the mischief produced by such alternate starvation of the system and repletion of the stomach, was obviously the first indication of treatment. Indeed, as regarded the vomiting, her imprudence seemed to have had so marked a tendency to encourage this symptom, that I did not expect to have much trouble in subduing it, if I could but enforce a better system of diet. This system was therefore thoroughly explained to her; and, in accordance with it, she was directed to take nothing but arrow-root, boiled in milk, and allowed to cool, in quantities not exceeding a single tablespoonful, to be repeated every two hours, if well borne by the stomach.

As regards drugs, the state of her general health rendered me very desirous of administering tonics, especially the salts of iron, with as little delay as possible. I therefore ordered her a mixture containing the sulphates of iron and quinine (a grain of each) in an ounce of water, thrice daily; and told her that, if (as I thought most probable) the vomiting was checked by the next day, she might then begin this mixture. The constipated bowels were relieved by a dose of castor oil; and in a day or two, finding the pain and vomiting much better, I ordered her a pill consisting of two grains of extract of aloes, with two grains of sulphate of iron, to be taken once a day before a meal. This pill soon relieved the constipation; and her amendment steadily continued, until it attained the degree indicated in the following report.

June 8th. She has had only one attack of complete vomiting since commencing the above plan, and has latterly even lost all sense of nausea. The pain has also diminished greatly; indeed, she asserts that there is scarcely any left. The soreness in the region of the epigastrium has also disappeared. In short, all that she now owns to is an occasional feeling of sinking, which is distinct from either nausea or pain, and comes on chiefly when the stomach is empty of food.

July 6th. The above sense of sinking has become much less frequent and marked. There has been no appearance of the pain or vomiting since the last report. The colour has rapidly returned to her face, and she is perceptibly stouter. Pulse fuller and firmer.

On July 11th she had a scanty return of menstruation. This was preceded by pain in the lumbar region, which

came on about twenty-four hours before, and lasted until the appearance of the catamenia. The pain in the loins was accompanied by slight pain, which she refers to the lower part of the epigastrium. But, besides that the situation of the latter sensation was below that of the original pain, it seemed to be quite unconnected with any trace of soreness, nausea, or vomiting, as well as with any symptom of uneasiness after the ingestion of food. From these characters, and from its complete disappearance when the menstrual flux was established, there could be little doubt that it was *not* a relapse of the gastric pain, but was merely one of those flying pains which are so frequent during the menstrual crisis.

The subsequent history of the case affords a somewhat unsatisfactory comment upon this conjecture. The patient appeared to consider herself quite recovered; and although I was anxious to watch the permanence of her amendment, she shortly after discontinued her attendance. This was hardly to be wondered at; for her dyspeptic symptoms had vanished, her health and strength seemed all but restored, and, lastly, the amenorrhœa (a symptom which, with most females of the lower classes, generally receives a degree of notice quite disproportionate to the other features of a malady) had apparently ceased.

REMARKS. The comments made on the various cases of gastric ulcer which I have already brought before the readers of this JOURNAL,* will spare me the necessity of making any remarks upon the foregoing case, except such as relate to that peculiar group of these lesions to which it belongs.

This group, occurring in the young female during the few years which immediately follow the advent of puberty, we have stated to be characterised, pathologically speaking, by a peculiar want of inflammatory reaction on the part of the lesion; such as deprives it of the usual protection against perforation, and thus facilitates and increases its liability to this event. This increase of liability is such, that we may estimate that a gastric ulcer in a female at the age between fifteen and twenty is from seven to ten times more likely to cause death, by perforating the coats of the organ, than it would be, supposing the female to have reached the age of forty. And it seems probable that the contrast between the ulcer of the male and female at the same age (from fifteen to twenty) would exhibit a difference of liability far exceeding even this;—about thirty or forty times greater in the female than in the male.

The symptoms of this case are of especial interest, because they illustrate what I believe to be the true relation of the amenorrhœa to the ulcer in the above group. Just as is shown by the priority of the gastric symptoms in this particular instance, so others of the same kind which have come under my notice seem to prove, that the amenorrhœa in these cases is the result of the ulcer, and is not in any way concerned in the production of the lesion:—that, in fact, the suspension of this periodic hæmorrhage is a result of the same law as that which often gives rise to its intermission in the earlier stages of phthisis and other constitutional disorders, and which normally suspends it during pregnancy and lactation.

A careful observation of the details of the constitutional state that accompanies this amenorrhœa, affords some confirmation of such a view. This state it is customary to speak of as “chlorotic”. But I have never yet seen an instance that would suffice to establish the pathological identity of the cachexia present in this group of gastric ulcers, and that of true chlorosis. Nor do I know any authentic records of such a case.

The differences of these two constitutional states are illustrated by what has been above said respecting the symptoms present in this unusually well marked example. The pallor, though extreme, was devoid of all trace of that greenish hue, which the very name of *chlorosis* denotes.

* British and Foreign Medico-Chirurgical Review, *loc. cit.*

† Lancet, 1843, vol. ii, p. 639. I am glad to take this opportunity of alluding to another gentleman whose clinical researches seem equally to have escaped the notice of British authors on this subject. I refer to Dr. Osborne, of Dublin, whose valuable observations respecting the influence of the gastric ulcer on the decubitus, will be found in the “Dublin Journal of Medical Science”, vol. xxvii, p. 361.

* See pages 985, 1107, 1125, and 1145, in the last volume.

† The statements on which this proposition is based are detailed in the author's essay, already cited (p. 170).

The dyspnoea on exertion, and the soft bellows-sound, were also much less considerable than in this disease. Lastly, there was little or no oedema of the legs; a symptom which rarely fails in moderately severe cases of chlorosis.

It would, of course, be rash to assert than an inconsiderable degree of true chlorosis would so necessarily offer all these characters, as to be at once distinguished from the pallid cachectic amenorrhoea of the gastric ulcer, or the not very dissimilar state sometimes present in phthisis, or heart-disease. But such rare exceptions to the above distinctions are themselves the strongest practical argument for our insisting on their importance. Certain symptoms are, as a rule, present in chlorosis. That they are rarely absent is, therefore not merely a suspicious feature against any particular case in which they fail to occur, but one which calls for the strictest scrutiny of various important organs—the stomach, lungs, or heart—before we can justifiably assume that the cachexia, which constitutes one of the chief elements of the patient's malady, is its cause and essence, and, therefore, the chief and only object of treatment.

Lastly, in spite of the imminent danger of perforation that forms the most serious feature of this group of gastric ulcers, there is no reason to suppose them less curable than other varieties of this lesion. On the contrary, if there be any difference in this respect, it is rather in their favour. Rest, however, is generally an indispensable part of their treatment. Occurring, as they so often do, in a class of persons who (either as domestic servants or as shopwomen) are deprived of fresh air, and engaged in constant toil during many hours daily, it is occasionally necessary to enforce this rule by something more than hints as to the danger they incur in regarding their dyspeptic symptoms as due to mere indigestion. Tight lacing, again, is an evil habit, common among those persons, which seriously aggravates the peril they incur; both by constantly compressing the stomach and irritating the ulcer, and by supplying a very efficient and immediate mechanical cause of perforation. It is one of the contingent advantages of blisters to the epigastrium, that they ensure at least a temporary intermission to this constriction, which no moderate amount of pain or discomfort will induce many women to forego. The simple starch and milk diet, by which vomiting is best allayed, may be gradually exchanged for the food usually taken in health, with much greater rapidity than is the case in the gastric ulcer of older persons. Indeed, both as regards food and drugs, the stomach is rarely so irritable and prone to vomiting as in the ulcer of larger size, and longer duration, which occurs in the middle age of adult life. Hence quinine is well borne, and is productive of great benefit. An ordinary rhubarb or colocynth pill, or a grain or two of aloes, is frequently a very convenient aperient. Finally, iron seems to have an influence on the lesion—and (if we may distinguish) on the accompanying cachexia—which is even more direct and unmistakable than in other groups of gastric ulcer;—an influence which really approaches, if not equals, the efficacy it has long been known to possess in true chlorosis.

Brook Street, Grosvenor Square, Jan. 4th, 1856.

ST. GEORGE'S HOSPITAL.

CASE OF DIFFUSE INFLAMMATION AND GANGRENE OF THE ABDOMINAL WALL FROM ULCERATION OF THE APPENDIX CÆCI.

By T. HOLMES, Esq., Surgical Registrar to the Hospital.

I HAVE thought that the following case may be interesting, as illustrating the insidious manner in which ulceration of the intestines sometimes occurs, and the grave consequences to which it naturally leads. This subject I shall pursue in a future examination in connexion with the treatment of hernia.

The instance which I now bring forward was, I believe, an example of the same disease occurring "idiopathically", i.e.,

from some cause which must remain obscure in the present state of our knowledge. The disease I refer to consists, I believe, in ulceration extending outwards from the mucous membrane of the gut, and so forming a fecal abscess, presenting externally; the effusion of feces into the general sac of the peritoneum having been prevented by previous adhesion of the ulcerated intestine to the parts in the neighbourhood. That this was the course pursued by the morbid action in the present case, and that the disease did not consist in the opening of the gut by an external abscess, is proved, I think, by the diffuse inflammation which surrounded the parts destroyed by the effusion, so exactly resembling the state of the perinæum in cases of effusion of urine, and so different from the condition left by the pouring out of feces into the solidified sac of an abscess, as well as by the absence of any collection of pus near the incisions, or of any remains of an abscess on *post mortem* examination. This perforation of the gut was not, it will be seen, preceded by any acute inflammation of the cæcum or its appendages; for although the patient's account was necessarily very imperfect, there could be no doubt from it, confirmed as it was by her relatives, that the bowels had been open without pain for some days before, and that on the first day of attack she was well enough to be out walking. As to the bowel complaint, from which she was stated to have suffered, there was no reason to doubt that it was merely a case of the usual autumn diarrhoea—especially rife about that time. Another interesting particular in the case is the presence of a large abscess of the liver, not preceded by any symptom of pyæmia, or of disease of that viscus. The probability is, that the pyæmia was present, but that the symptoms had been more than usually obscure, and were overlooked.

CASE. E. R., a woman, apparently about 60 years of age, but whose age was stated to be 49, was admitted on October 12th, 1854, under the care of Mr. Cutler, on account of diffuse inflammation and gangrene of the abdominal parietes. She could give no intelligible history of the attack, and was slightly delirious, answering simple questions rationally, but soon rambling off to another subject. It seemed that she had had "bowel complaint" about a fortnight before her admission, but had recovered from this, and was out walking, when she felt a pain in the abdomen, and on coming home and looking at the part, found it red and swollen. This was on the tenth day before admission. She kept quiet for several days, not treating the disease further than by the application of some ointment. The sloughs made their appearance on the third day before admission. Her bowels had been open regularly till the previous day.

On examination, the abdomen was found considerably swollen, from about two inches below the umbilicus to the pubes. This swelling was ill defined, and appeared confined (or, at least, principally) to the abdominal parietes, which were of a bright red colour, and pitting to a good depth on pressure; there was no sense of fluctuation. The redness extended over the hip to the buttocks, and was not terminated by any distinct line. Just below the umbilicus, and about two inches to its right side, were two patches of gangrene, about the size of a crown-piece. There was no line of demarcation to the sloughs. There was tympanic resonance to percussion over the right iliac and hypogastric region, but not in the other parts of the abdomen. There was no emphysema.

Four incisions were made into the inflamed part, care being taken not to go too deep; from the one nearest the gangrene, air of a very foetid odour began to bubble up slowly. The cellular tissue was much thickened, but no pus was found. She was in a state of great depression. Stimulants were given largely, and she soon rallied.

Next morning a quantity of liquid feces were found to pass from the wound above referred to. The gangrene had rather extended, but the area of inflammation was lessened. The bowels were constipated, so that it became necessary to give purgatives. They acted copiously and naturally, and she felt much relief from the evacuation. Fæces con-